AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior listings of claims in the application:

LISTING OF CLAIMS:

1-234 were cancelled in a Preliminary Amendment dated December 2, 2003.

235. (Currently Amended) A method for identifying a compound that putatively modulates or elicits ~~human T1R3-associated~~ sweet taste in a human subject comprising:

(1) screening one or more compounds in a binding assay which identifies compounds that specifically bind to a human T1R3 polypeptide or which modulate (inhibit or enhance) the specific binding of another compound that specifically binds to said human T1R3 polypeptide, wherein said T1R3 polypeptide is selected from the group consisting of:

(a) a human TlR3 polypeptide having the amino acid sequence encoded by SEQ. ID. NO: 4;

(b) a human T1R3 polypeptide encoded by a nucleic acid sequence that specifically hybridizes to the hT1R3 nucleic acid sequence contained in SEQ. ID. NOS: 2, 3 or 20 under stringent hybridization conditions~~;~~ which are 50% formamide, 5X SSC and 1% SDS, incubating at 65 degrees C; with wash in 0.2X SSC and 0.1% SDS at 65 degrees C and which human T1R3 polypeptide specifically binds to a sweet ligand ; and

(c) a human T1R3 polypeptide which has possesses at least 90% sequence identity to the amino acid sequence contained in SEQ. ID. NO: 4 ~~or a functional fragment thereof~~;

~~(d) a human T1R3 polypeptide fragment that is encoded by a fragment of the nucleic acid sequence having SEQ. ID. NO:2 or 20, which fragment comprises at least 1000 contiguous nucleotides of said sequence or a fragment of a T1R3 polypeptide according to (a) or (b) which is at least 50 amino acids in length;~~

(2) identifying compounds that putatively ~~modulates or elicits human T1R3-associated~~ modulate taste based on its specific binding to a human T1R3 polypeptide according to (a), (b), or (c), ~~or (d),~~ or its modulation (inhibition or enhancement) of the specific binding of another compound to a T1R3 polypeptide according to (a), (b), or (c) ~~or (d)~~.

236. (Previously Presented) The method of claim 235, wherein the human T1R3 polypeptide has the amino acid sequence contained in SEQ. ID. NO: 4.

237. (Previously Presented) The method of claim 235, wherein said T1R3 polypeptide possesses at least 90% sequence identity to the polypeptide contained in SEQ. ID. NO: 4.

238. (Previously Presented) The method of claim 237, wherein said T1R3 polypeptide possesses at least 95% sequence identity to the polypeptide contained in SEQ. ID. NO: 4.

239. (Previously Presented) The method of claim 237, wherein the T1R3 polypeptide possesses at least 96% sequence identity to the polypeptide contained in SEQ. ID. NO: 4.

240. (Previously Presented) The method of claim 237, wherein the T1R3 polypeptide possesses at least 97% sequence identity to the polypeptide contained in SEQ. ID. NO: 4.

241. (Previously Presented) The method of claim 237, wherein said T1R3 polypeptide possesses at least 98% sequence identity to the polypeptide contained in SEQ. ID. NO: 4.

242. (Previously Presented) The method of claim 237, wherein said TlR3 polypeptide possesses at least 99% sequence identity to the polypeptide contained in SEQ. ID. NO: 4.

243. (Currently Amended) The method of claim 235, wherein said T1R3 polypeptide is encoded by a nucleic acid sequence that hybridizes to the nucleic acid sequence contained in SEQ. ID. NO: 2, 3 or 20 ~~or a fragment thereof which is at least 500 nucleotides~~ under said stringent hybridization conditions.

244. (Currently Amended) The method of claim 243, wherein said T1R3 polypeptide is encoded by a sequence that is ~~at least 1000 nucleotides~~ contained on an expression vector.

245. (Previously Presented) The method of claim 235, wherein said T1R3 polypeptide is attached to a solid phase.

246. (Previously Presented) The method of claim 235, wherein said T1R3 polypeptide is in solution.

247. (Previously Presented) The method of claim 235, wherein T1R3 polypeptide is in a lipid bilayer or vesicle.

248. (Previously Presented) The method of claim 235, wherein said T1R3 polypeptide is expressed by a cell.

249. (Previously Presented) The method of claim 235, wherein said T1R3 polypeptide is comprised on a cell membrane.

250. (Previously Presented) The method of claim 248, wherein the cell is a prokaryotic cell.

251. (Previously Presented) The method of claim 248, wherein the cell is a eukaryotic cell.

252. (Previously Presented) The method of claim 251, wherein said cell is a yeast, insect, amphibian or mammalian cell.

253. (Currently Amended) The method of claim 252, wherein the cell is a CHO cell, HEK-293 cell, COS cell, or Xenopus oocyte.

254. (Currently Amended) The method of claim~~s~~ 235, wherein the binding assay detect~~s~~ a change in T1R3 polypeptide conformation upon binding of the compound.

255. (Previously Presented) The method of claim 254, wherein said change is detected by NMR spectroscopy.

256. (Previously Presented) The method of claim 254, wherein said change is detected by fluorescence spectroscopy.

257. (Previously Presented) The method of claim 248, wherein said cell further expresses a G protein that couples to said T1R3 polypeptide.

258. (Previously Presented) The method of claim 257, wherein said G protein is $G_{\alpha 15}$ or $G_{\alpha 16}$ or gustducin.

259. (Previously Presented) The method of claim 235, wherein the binding assay includes the use of a label.

260. (Previously Presented) The method of claim 259, wherein said label is an enzyme, radionuclide, chemiluminescent compound or fluorescent compound.

261. (Previously Presented) The method of claim 235, wherein the binding assay detects binding of a labeled ligand to said T1R3 polypeptide.

262. (Previously Presented) The method of claim 261, wherein said assay is a fluorescent polarization or FRET assay.

263. (Previously Presented) The method of claim 235, wherein binding of a compound to T1R3 polypeptide is detected by a competitive binding assay.

264. (Previously Presented) The method of claims 235, wherein the binding of a compound to said T1R3 polypeptide is detected by a non-competitive binding assay.

265. (Previously Presented) The method of claim 235, wherein the binding assay uses an intact or permeabilized cell that expresses said T1R3 polypeptide.

266. (Previously Presented) The method of claim 235, wherein the binding assay detects release of a labeled ligand from said T1R3 polypeptide.

267. (Previously Presented) The method of claim 235, wherein the binding assay detects binding of a compound to T1R3 based on a detectable change in fluorescent absorbance or refractive index.

268. (Previously Presented) The method of claim 235 which is a high throughput binding assay.

269. (Previously Presented) The method of claim 268 which screens a library of at least 1000 compounds.

270. (Previously Presented) The method of claim 269, wherein said library is a combinatorial chemical library.

271. (Previously Presented) The method of claim 235, which further includes step (3) whereby the effect of said putative taste modulating compound is assayed in a human taste test.